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The Co-operative Unit as a Basic Factor in the Future of the Profession*

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GLASGOW

The Executive Committee of the Division have been charged with the duty of examining possible proposals for a long-term policy for the profession. As this matter is of supreme importance to the future well-being of everyone of us it is essential that the subject should have very careful thought bestowed on it. To this end it is the opinion of the Committee that the views of everyone should be considered. Realising that it is difficult to obtain such views without some focal discussion I have been charged with the task of setting the ball rolling.

I do so in all humility in the hope that out of the discussion some guidance will be given to the profession, and, particularly to those who will be most closely concerned with carrying out the reconstruction, in regard to what the West of Scotland is thinking.

Perhaps I might remind you that this Division is in no small measure responsible for much of the present Ministry scheme concerned with the eradication of tuberculosis—not, I might say, in the form suggested by the Division and the Scottish Branch, but a poor imitation. Nevertheless, many have benefited in the profession from that small beginning, arising out of a paper read to this Division by Major McGregor. I said *many* have benefited. Our object now in formulating a long-term policy is to ensure, as far as is humanly possible, that everyone in the profession can do the job they want and are fitted for with the assurance of security while still retaining their individuality. It does not, of course, follow that any scheme of reorganisation will be perfect from the word go—that would be asking too much of human nature—but at least we must attempt to lay the foundations of a scheme in such a manner that it is capable of growing naturally along with the times, adaptable both to changing circumstances of knowledge and economics.

Advances in knowledge have invariably sprung from individualism: either from a primary desire for further knowledge on the part of the individual, or from economic necessity. The pooling of knowledge and further co-operative effort have led to more rapid advances, the whole process being governed by the general economic standard of the community. It seems, therefore, that with these basic facts in mind, our aim must be to construct a scheme which will not violate, but rather add to the fulfilment of, these principles.

There may be many ways of doing it, but I propose to give you, very briefly, the outlines of a scheme which I think will fulfil those aims with the minimum of change for individuals and with the prospect of early maximum results in all the branches of our science: we must not make a scheme for sections.

What are the elements of the profession necessary to maintain those principles already referred to? The answer must be that no single section or aspect of veterinary science can be left out if the profession is to give of its maximum effort to the care and treatment of all animals, that the direction of those efforts must be in the hands of the profession, and that new ideas must have outlet.

Now the basis of my view is to collect in groups, throughout the country, practitioners, research workers and State officers. Let them thrash out their local problems as they arise and work in harmony to solve them, the State officers at the same time having a very much freer hand within their Divisions while still carrying out the work of the Diseases of Animals Acts. We do this as Divisions of the N.V.M.A. and make some progress. Why should the same principle fail when it means merely a translation of these principles to more definite aims and with closer connections between each one of us?

I am certain that there will be no likelihood of difference of opinion arising over the question of the necessity for complete collaboration in the future, but when it comes to forming a practical scheme, difficulties appear almost insurmountable at first sight.

The practicability of any scheme depends, firstly, on the willingness and enthusiasm of individuals for co-operation, and secondly, on the active partnership of the Government as represented by the Animal Health Division; it is also essential that other bodies concerned with animal welfare or research should have an opportunity of being interested. Further, that in the running of a reorganised profession, opportunity be afforded to the students at our veterinary schools to attain a high degree of proficiency in all branches, and an opportunity of developing any individual talent, secure in the knowledge that it will not be necessary to forgo interest in their science in order to have economic security.

I cannot see how any scheme capable of taking in all aspects of the profession could be set going by the State as the sole directional force. I do, think, however, that if we could arrange voluntary regional schemes in close association with the State department in the first instance, then, as time went on, a very satisfactory national service would come into being.

Is the achievement of this ideal possible under present conditions? I am afraid not, in a complete form. It is just for that reason that we must create the framework now. At present there are all kinds of small schemes in being or under consideration, concerned with bits of our problems, and if we are not very careful we will find as an aftermath of the war innumerable sectional interests not then easily amalgamated.

Let me assume that this area decided to operate a scheme of complete veterinary service. How could it be done?

The focal point for concerted action should be a central laboratory, or, as I prefer to envisage it, a central hospital. Perhaps the choice of term should be a co-operative unit.

A complete unit should be made up of (*a*) a Ministry laboratory, to deal with routine diagnosis work; (*b*) a research section, supported by the Ministry and other interested bodies; (*c*) a commercial section and (*d*) a general hospital for large and small animals.

The commercial section would deal with the needs of the general practitioner, for the purpose of diagnosis outside of Ministry work and for the supply of biological products. In the first instance the cost of staffing the commercial section could be overcome by charges being made by the subsidised laboratories until ultimately this department became self-supporting and the costs reduced, thus enabling the general practitioner to make more use of it. Our increase in knowledge would be substantial in a short time. The correlation of facts between the units in different parts of the country would be simplified and accurate statistical records of disease problems would soon be available on which to base the future general, or particular, policy to be followed by the profession. The laboratory section should be capable of giving employment to biochemists and other special workers.

The general hospital for large and small animals could provide X-ray and operating facilities in addition to proper accommodation and trained lay staff for nursing. The general hospital could easily be run on the present overhead cost of a few of the practices in the area and with facilities which would always be better than any that an individual could ever hope to attain. In this way a practitioner who, having a small number of cases requiring, say, an abdominal operation, would not be faced with the necessity of improvising, but could arrange to do his work under ideal conditions. It seems to me that the public are entitled to this service, and the younger practitioners also, who are going to find it increasingly difficult to finance the equipment of their practices in a manner which they know to be necessary for the proper treatment of their patients.

The initial cost of buildings to develop a unit is, of course, the major problem. In war-time it would not be possible to proceed with it. In times of peace the banks would be only too willing to finance such a project. If the Ministry and other interested bodies contributed their share in staff and equipment, all that would remain for the success of the scheme to become assured would be the support of the practitioners. There would be no compulsion or even necessity for an individual to take advantage of the facilities offered, but it should be obvious that to remain aloof to the advantages would be, to say the least, unrealistic.

For the general practitioner there need be little if any disturbance in the present method of conducting his practice. By general agreement fixed charges could be made for each facility offered. There would be no interference with the practitioner's own charges. The difference would be his profit. If at the end of a year the income of the unit exceeded expenditure, the surplus would go to improving the facilities or reducing the charges, or be dealt with in any manner agreed on by a governing committee.

From the Ministry point of view it should be easier for their Divisional Officer to concert and distribute the work available and

* Paper presented to the West of Scotland Division, N.V.M.A., at Glasgow, September 30th, 1942, in opening a discussion on a long-term policy for the profession.

keep in touch with all sides of veterinary science. The same applies to the research side.

If a State service is the ultimate end it would develop naturally and completely along reasoned lines and not be foisted on the profession as now appears likely.

One other aspect of our profession which deserves attention is the treatment of animals of the poor. It would be possible to run a poor people's clinic in conjunction with such a unit. Surely the animal welfare societies would have but poor argument to put up to show that their individual schemes were half as good as concerted action by the profession with their help could be. If they really have the good of the animals at heart they should welcome the co-operation of the profession. In any case in what we hope will be a progressive world after the war, the poor should gradually become a very small section of the community, but the personnel engaged in this side of our work could, I am sure, be absorbed into other sections of a general scheme, and the subscribers to such welfare societies could be assured that their money was being definitely directed to the best use for the good of animals.

I have purposely made this paper somewhat sketchy: to go into too great detail at this time would be presumptuous. My purpose is merely to promote a discussion on the subject of a long-term policy, and it is really the constructive ideas which must be in the thoughts of all of us which the committee are anxious to learn. If antagonism to my ideas is productive of this constructive thinking then my purpose has been served.

All I ask is that you do not damn the scheme with faint praise and then do nothing. As a profession to-day we cannot as individuals sit back and let things drift. We must show that we are willing and able to take our place in the framework of society. I have no doubts as to our ability to do so.

Discussion

In the discussion which followed the following points were brought out. It was generally agreed that changes in the professional life would take place and that some constructive thought should be given to the whole problem in order to minimise the risk of chaos developing.

Mr. Pottie suggested that some form of central clinic might be established at the veterinary colleges. While agreeing to some extent with this point as it referred to Glasgow, Mr. Thomson pointed out that he envisaged these units throughout the country, that greater advantages would be given to students to take part in the active work of these units at various stages in their course of study and in this way they would become more fitted to take their place ultimately in the scheme of things.

Mr. D. Campbell: The scheme appeared utopian, but that did not mean that it was unworkable. He himself was not afraid of Utopia. While our work would always be in large measure concerned with the larger animals and as far as the State was concerned principally with cattle and the other farm animals which as a rule did not require hospitalisation, a hospital could be of advantage in a number of cases and possibly more than were at present envisaged by the ordinary general practitioner. There were a number of other advantages to be taken into account in a centralisation scheme with laboratory facilities. There was certainly nothing to be lost by discussing such schemes.

Mr. A. H. F. Robb: He was very agreeably surprised to find the interest shown in this subject. He had of course discussed this matter with Mr. Thomson for a long time now. He might say he was very favourably disposed to the proposals but he was anxious to learn what other people thought about them. For himself he could see that in time units such as this could lead to specialisation and of course the bringing to bear of more knowledge on particular aspects of our work, which was not possible at present. There were many good points in the scheme to commend it. Of course there would be some "snags": free discussion of it would bring these "snags" to light.

Mr. Thomson, replying, said that it was on the question of specialisation that he differed from Mr. Robb. Specialisation might be the ultimate end of such co-operative effort but not for a very long time. He did feel the advantage to be not so much specialisation as the opportunity which would be given to the ordinary general practitioner to do much better work with his present knowledge, and having improved facilities to increase his usefulness. It might and probably would happen that in this process some would become specialists. The specialists necessary at the outset would be on the laboratory side.

Dr. P. S. Watts: He was interested in the idea of co-operation because he saw many advantages in it. Certainly the tendency nowadays was for practices to get larger. If in that process several were to come together and the personnel worked in harmony a much better all-round result would be obtained, and with less really hard work for individuals. He did not know if he understood Mr. Thomson to say that the State should be partners in such a scheme without having a controlling influence. He could not himself see the State subscribing money to anything in the running of which they did not have a major say. He certainly hoped we would evolve something to preserve the individuality of practitioners. He just wondered if we were too late. Most practitioners were now on the pay roll of the State.

Mr. Thomson: It was just that point of State control which he was most anxious to avoid. In fact when discussing the scheme some years ago it was to prevent the possibility of that happening—by enabling practitioners to correlate their work in areas in such a way that nobody could do it better. As things were now, however, the State having certain schemes in view, he still saw no reason why the State should not be willing to become partners without dictating local policy; after all, it was being shown daily that decentralisation was the best way of doing things provided there was a general plan.

Professor Weir: He had of course discussed the problem with Mr. Thomson and he could see good points in such a scheme. There were, however, many difficulties: for instance, in outlying districts like the west coast and the islands, how could they take advantage of a hospital? Certainly in districts where access was easier there might be many advantages in having facilities for investigation easily tapped.

Major J. G. McGregor: He wanted to compliment Mr. Thomson on bringing forward this subject on behalf of the Division: he thought that it might be considered in future one of the red letter days. He could well remember the work which had been carried out by this Division in connection with the eradication scheme—with which Mr. Thomson had so kindly coupled his name. It was certainly true to say that at that time the West of Scotland had given a lead to the profession. There was no reason why they should not do so again. It was fairly certain that changes would come in the profession within our lifetime and co-operative practice might quite easily be the salvation of not only the general practitioner but of the profession itself as a progressive body. The idea was not exactly new and untried. It had been tried with success in other parts of the world: by a group of veterinary surgeons in Shanghai and also in some parts of America. The Italian Veterinary Service, which was a State Service, was based on these lines. It was true to say that there were very definite advantages to be gained. Men who had tried the system out had a very much better life and in many ways a fuller life in the true sense of the term than a single-handed practitioner. General practice could be a slave's job and it need not be.

The question of finance was one which might be overcome in several ways. There might be a scheme of insurance carried out by various means whereby the animal owners and the profession could arrange a service. The question of laboratory service need not be a stumbling block. Laboratory services were being established now even in the Western Isles: the Highlands and Islands Scheme had made provision for this to be done.

He thought the Government might welcome a concerted move by the profession. There were many points which would have to be discussed by the Executive but he had been most interested in this discussion and hoped that the matter would be taken through further stages by the committee at an early date.

Mr. A. S. Chapman: He had been most interested in all that had been discussed but at the moment could add little. There seemed, however, to be possibilities which demanded further thought.

Captain Watt: It seemed that there was much to be discussed yet before anything like final agreement could be reached. Many schemes were being mooted and it was up to each of us to take an interest in what was being done. He proposed that the Executive Committee be asked to consider the matter further. This was agreed to.

The President, in closing the meeting, said that he had been impressed with the interest shown in the subject.

Growth Rates of Sanga (Ankole) Calves

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Past work on Tanganyika cattle has been confined to observations on the Shorthorned Zebu type because they represent by far the greater majority of the cattle population and because the Sanga (Ankole) type of the Bukoba district are slow growing less profitable stock. The Bukoba grazing and management conditions are poor and the rate of reproduction is very low. Over much of this area the first calf is normally dropped when the dam is 4-5 years old and subsequent calves are born at varying intervals, up to three years, according to the nutritional plane.

Not only are the grazing conditions poor, but a heavy tick population takes its quota of blood and the tick-borne parasites still further retard the development of young stock. That it is the poor Bukoba nutritional conditions and not the genetic make-up of the Ankole cattle which are responsible for the slow growth rates and low reproductive rates has been demonstrated by an experiment staged by the Veterinary Department in 1933. A number of Ankole cattle from Bukoba were transferred to the good grazing conditions of Musoma and Zebu cattle from Musoma were transported to the Bukoba pastures. The Musoma Zebus fared very badly in Bukoba, whilst the Bukoba Ankoles in Musoma did well and their growth and reproductive rates improved considerably on the normal Bukoba values.

In 1936 a few Ankoles were brought to Mpapwa to form the nucleus of a herd which could be used for a more intensive study of this breed. Unfortunately Ankoles are very susceptible to tuberculosis and many of the animals brought to Mpapwa had to be destroyed for this reason. Only a few tuberculosis-free calves were obtained, but their growth rates have been examined under good management and feeding conditions. In the accompanying table the average rates of live weight increases are given, together with the corresponding figures for Zebu bulls under the same conditions.

It is recognised and regretted that the value of these figures is reduced by the few animals under observation, but it is considered that these figures from animals picked at random are of value in demonstrating that Ankole calves under good conditions can grow quickly and at a faster rate than Zebu calves.

Growth Rates of Sanga (Ankole) and Shorthorn Zebu Calves
(Weights in lbs.)

	Heifers	Bulls			Heifers	Bulls	
	Ankole	Ankole	Zebu		Ankole	Ankole	Zebu
Birth	47·0	54·0	32·0	40	249·6	225·4	246·9
4	80·0	84·9	46·8	44	270·0	242·6	268·9
8	96·5	98·2	69·0	48	295·6	295·0	293·0
12	118·0	115·0	95·6	52	324·0	326·1	305·1
16	137·4	132·9	120·2	56	348·3	397·0	333·9
20	145·4	147·1	150·0	60	380·3	428·0	357·1
24	171·9	175·8	179·0	62	386·7	453·0	374·0
28	200·6	196·0	200·5	64	386·7	473·0	374·0
32	218·7	210·0	215·3	68	407·0		388·3
36	240·0	207·2	227·4	72	418·0		408·0

The figures go only to the 72nd week because at this age the Ankole calves began showing trypanosomes in their blood. All eventually contracted trypanosomiasis, but in spite of this set-back

Brigadier George Alexander Kelly, m.r.c.v.s., Director, Army Veterinary and Remount Services.

WINTER RATIONS FOR LIVESTOCK

The winter rationing arrangements for livestock will differ only slightly from those in force last winter. Supplies of protein feeding-stuffs will be more restricted, but this will be offset by rather better supplies of cereals.

Dairy Herds.—Rations for each winter month will be based on milk sales two months previously. One unit of protein and three units of cereals will be granted for each 100 gallons of milk sold in excess of 15 gallons per cow per month, subject to a deduction of 48 lb. of cereals per cow per month. This means that the farmer is expected to supply the maintenance part of the ration together with protein for the first ¼-gallon and cereals for the first gallon per day.

Pigs and Poultry.—Winter ration scales will start on September 1st and will differ from those of last winter only in respect of the ratio of protein to cereal, which will be 1:7. The larger allowances made available for farrowing sows this summer will be continued during the winter and, as already announced, rations will be allowed for chick rearing.

Other Stock.—Details of the allowances obtainable on application for other stock will be given in a leaflet to be sent to all farmers in August, when the coupons will be issued to those entitled to basic rations for pigs and poultry.

the average weights for the heifers and bulls at 2 years old were 546 lb. and 615 lb. respectively, whilst at 3 years of age their weights were 741 lb. and 950 lb. Zebu bulls at 2 years and 3 years old averaged respectively 539 lb. and 687 lb.

It is also worth recording that the average age of the Ankole heifers in the above study when they came on heat for the first time was 93 weeks.

It is apparent, therefore, that under good conditions Ankole calves grow as quickly as Zebu calves and eventually make much heavier animals.

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CHANGES IN THE R.A.V.C.

We learn from a recent number of the *Journal of the R.A.V.C.* that Brigadier Murray has relinquished his duties as Director of the R.A.V.C. He was appointed in 1937 and although he was compelled to reduce the Corps to a mere cadre, his organisation was so complete that at the outbreak of war he was able to carry out a rapid expansion. During his tenure of office the long desired and logical amalgamation of the Army Veterinary and Remount Services was accomplished, due largely to his foresight and readiness. As the war progressed other duties, such as the provision of war dogs, meat inspection in the Middle East, and the formation of an animal farm, were added to the responsibilities of the Corps.

Brigadier G. A. Kelly is now Director, Army Veterinary and Remount Services. Joining the Corps in 1911, he has had a distinguished career and seen much foreign service; having so recently returned from the Middle East, where the bulk of the R.A.V.C. is stationed, he will have a real understanding of their problems and requirements, and a clear picture of the role they may play in the future.

It is perhaps no coincidence that the R.A.V.C. took on the duties of meat inspection in the Middle East where Brigadier Kelly was in command. In the same number of the *Journal of the R.A.V.C.* announcing the new appointment there is an article describing the functions of the U.S.A. Army Veterinary Service. The Service is responsible for the hygienic and sanitary conditions of all animals and their care when sick or wounded; it instructs the military personnel in animal sanitation and management, including horse shoeing. There are five laboratories where routine or research work is carried out and amongst other biological products they produced during the year 1940 nearly a million doses of equine encephalomyelitis vaccine.

The service is, of course, responsible for the quality of animal feeding stuffs and it is also responsible for the inspection of food for the whole of the Army personnel including the air arm. To quote from the article: "When the Army set about developing a personnel to pass upon and guarantee the quality of its food, it was soon realised that its veterinary officers alone had the requisite scientific training in animal pathology to determine the healthfulness or otherwise of the animals from which its principal foods are derived. . . . The Army recognised and accepts the inspection service of the Bureau of Animal Industry (carried out by veterinary surgeons) in so far as it covers the *ante-* and *post-mortem* examination, but charges the Army Veterinary Service with the inspection for class, type, quality, grade and sanitary conditions and, where B.A.I. inspected products are not available, with *ante-* and *post-mortem* inspection of food animals and sanitary inspecting of food processing establishments."

We are sure that under Brigadier Kelly's direction the work of the R.A.V.C. will continue to increase in scope and that, despite the increasing mechanisation of our forces, it will maintain its tradition as a useful and progressive branch of His Majesty's Army.

Weekly Wisdom

". . . the knowledge which a man can use is the only real knowledge, the only knowledge which has life and growth in it, and converts itself into a practical power. The rest hangs like dust about the brain, or lies like raindrops on the stones."—Froude.

CLINICAL COMMUNICATION

Benzyl Benzoate Treatment of Sarcoptic Mange

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BURNLEY

Treatments of sarcoptic mange have been many. The sulphur sub. in oil dressing has been used for a long time, but its results were often disappointing and the treatment had to be continued for some weeks. More varied dressings were introduced, such as one composed of ol. picis, ol. rapii, ol. tereb, zinci oxid. and sulphur sub., but again results were rarely permanently good, relapses occurring. Baths with potass. sulphurata gave temporary relief. With benzyl benzoate few dressings are required and only log-haired dogs need the hair clipping short.

CASE I.—*Subject.*—A six-months-old Dachshund, the property of Mrs. Fairclough, was examined on January 9th, 1943. There were extensive dry lesions covering the ears, the forehead, the forelegs and the hind, especially on the outer surfaces, the flanks and the surface of the abdomen. The dog emitted the musty smell which is inseparable from this disease, and the scratching was continuous. The puppy was bought in December, 1942, and the owner noticed the animal was restless at that time. The owner had lesions on both arms and was under medical supervision.

Deep scrapings were taken, but the *sarcoptes scabiae* var *canis* could not be found. The owner was given 4 oz. "Ascabiol" (33⅓ per cent. benzyl benzoate) (May & Baker) and instructed to dress the dog with 2 oz. after thoroughly washing the animal with soap and water, and to repeat the dressing, 2 oz. diluted with an equal amount of water, in four days' time.

On Saturday, January 19th, the dog was re-examined. The owner reported that scratching had ceased, and most of the scaly lesions had been removed, leaving the skin bare. On March 1st this puppy won the award for the best puppy in a show.

CASE II.—*Subject.*—An eight-months-old mongrel puppy. The extent of the lesions was not as great as in case I, but according to the owner the puppy had been scratching for three months. Identical treatment was given as above and on Friday, February 26th, one week after treatment, the dog was much improved. When seen in March no sign of mange was apparent.

CASE III.—*Subject.*—A six-months-old Retriever puppy. Here the lesions extended over the head and ears and down all four legs. Scrapings were taken deeply from the skin. 10 per cent. caustic soda solution was added, then, after boiling, the material was centrifuged and the deposit examined microscopically. Here two sarcoptes were found, and "Ascabiol" (May & Baker), 25 per cent. benzyl benzoate, was used in treatment on June 11th. On June 23rd the dog was re-examined and no lesions could be found and scratching had ceased.

The points which are outstanding in this treatment are:—

(1) The quickness and sureness of benzyl benzoate.

(2) A thorough washing with soap and water before treatment appears to add to the efficiency of the drug.

(3) Though the strength used has been reduced from 33 per cent. to 25 per cent. no reduction in effectiveness is apparent.

(4) No toxic effects are observed.

When sufficient vitamin A was added to the feed of 86 calves receiving skim milk with milk-fat substitute, calf pneumonia was reduced from 46·2 to 20 per cent. and death losses from 75 per cent. of the calves affected to 7 per cent. To prevent pneumonia when disease was the result of deficient diet from 15,000 to 20,000 units of vitamin A were fed daily.—*Vet. Med.*

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South Africa's farming is swinging from arable to pastoral. Reason is that the Union loses nearly 500,000 head of cattle and four million head of smaller stock through under-nourishment. She must produce more fodder rather than persist in exports of human food.—*Farmers' Weekly.*

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The time has indeed come when we should be using horses rather than tractors for all light work. A tractor engine uses very little less fuel when pulling half a load than when working at full capacity. In general, therefore, having regard to the fuel position, they should be worked only at full capacity. It is good to know, as an example, that horses are now being used for all short-distance haulage in the Northern Command.—*Farmer and Stock-Breeder.*

ABSTRACTS

[CRYSTAL VIOLET VACCINE AGAINST SWINE FEVER: A FIELD TRIAL. MATTHEWS, H. T., and DOYLE, T. M. (1943.) *J. comp. Path.* **53**. 121-129. (3 tables, appendix.).]

A preliminary report was published by Doyle (1942), *Vet. J.*, **98**, 51, giving the results of immunising tests with crystal violet vaccine against swine fever carried out under laboratory conditions. It was shown that in the particular series of tests the vaccine protected pigs for at least ten months. In view of this result, it was decided to test it on a small scale under the varying conditions that obtain in the field. The procedure followed was to purchase store pigs in the open market, vaccinate them at the laboratory and later move them to suitable field outbreaks of the disease. Three (W, Z, 22) different brews of vaccine were used. Each pig was given a dose of 10 c.c. subcutaneously and held at the laboratory sufficient time to allow for the establishment of immunity. On receipt of information that a suitable outbreak had occurred, and sometimes before diagnosis was officially established, one or more vaccinated pigs were transported by van from the laboratory to the infected premises, and one or more sick pigs were brought back from the outbreak to the laboratory in the same van. These sick pigs were tested at the laboratory for the presence of virus. The vaccinated pigs were placed in as intimate contact as could be arranged with sick pigs remaining on the infected premises and were observed at least once weekly over a period of not less than 28 days. The trial was severe in that the vaccinated pigs were involved in a journey and subjected to most unfavourable conditions. The trial extended from June 16th, 1941, to January 16th, 1942, embracing the extremes of heat and cold to be encountered in Great Britain. Of 36 vaccinated pigs thus severely exposed in 17 naturally occurring outbreaks of swine fever, one died of acute swine fever, one became ill but recovered, three showed reactions of a minor character, and 31 resisted infection. It would appear, therefore, that crystal violet vaccine afforded a high degree of protection in this series of cases.

L. E. W. B.

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[SULPHAGUANIDINE IN THE TREATMENT OF INFECTIOUS ENTERITIS OF SWINE. KERNKAMP, H. C. H., and ROEPKE, M. H. (1943.) *Amer. J. vet. Res.* **4**. 3.]

In various herds with percentage infection rates of from 25 to 80 per cent. the effect of dosing pigs naturally affected with enteritis with sulphaguanidine was studied. In each outbreak at least two *post-mortem* examinations were made to establish the diagnosis. The ages of the pigs varied from 3 weeks to 2 years and the weights from 8 to 415 lb. In the preliminary controlled experiments a dose varying around 1 gramme per 10 lb. body weight per day was found to reduce the mortality in 52 treated animals to 31 per cent., as against a mortality rate of 71 per cent. in 31 untreated controls. Further field experiments showed a recovery rate of 92 per cent. Studies of the blood, urine and faeces showed that although the drug was not readily absorbed some considerable proportion was and this was mainly excreted by the kidneys. If the dose exceeded 2 grammes/10 lb. b.w. per day toxic symptoms supervened. These symptoms were inappetence followed by locomotor inco-ordination characterised by a stiff upward and forward stride of the hind legs with general weakness leading to death. On *post-mortem* examination the kidneys showed signs of nephrosis.

The authors recommend the administration of this drug in doses up to 1·5 gramme/10 lb. body weight per day, divided into two and fed morning and night in the mash. If the animals cannot eat, capsules of the drug can be used and in any case the first dose should be twice the following doses. In general the animals should show improvement by the third to fifth day and the faeces be normal by the sixth. Treated animals are not immune and may be reinfected.

P. S. W.

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[A FILTRABLE VIRUS THE CAUSE OF A RESPIRATORY-NERVOUS DISORDER OF CHICKENS. STOVER, D. E. (1942.) *Amer. J. vet. Res.* **3**. 207-213. (9 refs.).]

A respiratory-nervous disorder in chickens of 3-10 weeks old, occasionally affecting younger chicks and hens, appeared in California in 1940. Its incidence has increased and it causes considerable economic loss owing to unthriftiness of survivors, the mortality being 5 per cent. to 15 per cent. Infected birds showed respiratory symptoms which abated after a crisis, while concurrently many developed nervous symptoms of three types, *viz.*, muscular inco-ordination, tremors and paralysis of the legs. Experimentally, the disease was transmissible with respiratory tissue extracts inoculated intratracheally or subcutaneously with an incubation period of two to six days. The infective agent passed Berkefeld W. filters. Recovered birds were immune and cross-immunity tests showed that the disease differed from the respiratory diseases prevalent in the district.

A. W. G.

IN PARLIAMENT

Lords Debate Government Milk Scheme

In the House of Lords, early last week, Lord Addison called attention to certain aspects of food policy with reference to milk and milk products, and their cleanliness and safety. The noble lord, who moved for papers, welcomed the Government's recent White Paper on milk. He was sure that within a few years the milk herds of this country would be immensely improved not only in quality but in milk yield.

Lord Horder said that medical opinion felt, on the whole, satisfied with the Government policy. But there was one exception—the sale of milk from accredited herds. He understood that much of this milk was not obtained from tuberculin-tested cows. Why then was it not going to be an offence to sell this milk unpasteurised? He hoped that the Government would reconsider this important point. It was an anomaly that in this year of grace, 1943, we should purvey a basic article of food knowing it to be a germ-spreading medium of a very high order. It would take several decades before anything like complete cleanliness could be effective at the cow end. Boiling milk did definitely lower its nutritive value. If they were to warn mothers not to give milk to their babies unless it was boiled, that would mean sabotaging a basic food. If the technique for pasteurising bulk milk meant cutting down some of the dirty handling and distributing premises, so much the better for the community.

Lord Hankey said that, according to his information, accredited milk did not deserve to be put in the same category as heat-treated milk and tuberculin-tested milk, as was proposed in the White Paper. The frequency of tubercle bacilli in accredited milk, if his information was correct, was probably as high as in ungraded milk. Figures from different parts of the country were reported to show that about 6 to 7 per cent. of farms in the country were sending out milk containing tubercle bacilli and that about 5·6 per cent. of samples of accredited milk were infected with tubercle bacilli. He suggested that if tubercle bacilli were found in accredited milk, the medical officer of health should be empowered to see that the milk was temporarily diverted to a plant for heat treatment until the diseased cow could be eliminated from the herd.

Lord Glentanar said he was sorry the Government proposals did not adumbrate a long-term policy to deal more radically with the cleaning up of dairy cattle. The Earl of Iveagh said that the White Paper was a step in the right direction.

Lord Beaverbrook welcomed the pasteurisation scheme. He said that if the system was extended, the small man should not be prejudiced for the benefit of combines. The National Farmers' Union was mainly concerned with the big farmer, and did nothing for the small man. The rationalisation of milk distribution had not meant any saving to the community, or improvement in service, or saving in man-power. A great deal of money was made, but it had gone to the Treasury. Milk was sold at a lower rate to the Express Dairies, the United Dairies, and the co-operative societies than to the small retailers. There was a steady process toward the destruction of small men, not only in the milk industry, but in shopkeeping generally.

Lord Sempill said he understood that American Forces in this country were advised not to drink milk because of the dangers involved. Earl De La Warr welcomed the White Paper. Lord Geddes asked how much milk would be pasteurised or otherwise dealt with in the coming 12 months.

Lord Woolton, Minister of Food, said it was hoped that within the next few months they would be able to increase the amount of pasteurised milk from 65 per cent. by another 15 per cent., and in the course of a year after that to cover the whole area of the country in which rationalisation schemes had been introduced.

He gave an assurance that in this matter he would do nothing which would make it impossible for the small distributor to stay in existence. If the Minister of Agriculture and he had waited for perfect agreement before producing the White Paper they would have been waiting still. They had taken what they regarded as a common sense and practical step.

The motion was agreed to.

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Insemination

In the House of Lords on July 28th, in the course of a debate introduced by Lord Brabazon, this speaker drew attention to recent advances in regard to insemination, and said that in the animal sphere an experiment had been made by a certain professor of inseminating a cow from a bull which had been dead over a week.

These were only the beginnings of a remarkable development in life production which might have a profound effect throughout the world, both in the animal and human spheres. We should not live in a fool's paradise and ignore the subject merely on the ground that it was unpleasant.

Lord Glentanar said that we had arrived at a gravely critical point in the thought of men. There was not only the question of insemination but also that of sex determination. He hoped that we should not go ahead in a large way with a programme based on the present very tentative results until the experiments had been carried over a period where the effect, not only on the animals themselves but on their progeny could be accurately assessed.

Viscount Bledisloe hoped that we in this country would do everything possible to discourage a process which could only in the long run, tend to break down family life. But with regard to livestock he hoped that the Governments of America and this country were considering very seriously the acceleration of the supply of semen for the rehabilitation of the devastated areas of Europe after the war. Otherwise large populations would be faced with the prospect of starvation.

The Bishop of Chichester said that a sharp distinction must be drawn between men and other mammals. Man was governed by reason and will and was guided by moral choice, while animals acted through instinct. Man was a spiritual being with a life beyond this earth.

Lord Cranworth advised the Government to go slow in this matter until more was known about pedigrees.

Lord Sempill agreed with the Bishop of Chichester that artificial insemination so far as human beings were concerned would mean the destruction of the best in human life.

The Duke of Norfolk, Joint Parliamentary Secretary to the Ministry of Agriculture, said that the Minister of Health was closely watching the matter from the human point of view. If and when that side became a live issue, he would doubtless consult the Lord Chancellor regarding the legal problems raised. Artificial insemination with regard to animals to-day provided a means of improving livestock that had hitherto been impossible. The three main advantages of artificial insemination were that the use of a valuable sire might be extended ; and a small farmer was able to use a sire which he would not otherwise be able to do. In certain respects the process was a safeguard against the spreading of disease. Artificial insemination had never been used in this country as a commercial business, or in the ordinary farming business. It would be idle to deny that there were great possibilities in it, but in view of certain dangers strict control of the practice was necessary in the interests of the livestock industry. Two large experimental stations had been set up and in a 1943 Act the Minister of Agriculture had taken certain powers of control regarding artificial insemination. Developments would be closely watched. Regulations relating to cattle were in an advanced stage of preparation and it was hoped to lay them before Parliament in the near future.

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Minister on Livestock Factor in Agriculture

In the course of his speech in the Agricultural debate in the House of Commons on Wednesday of last week, Mr. R. S. Hudson said that, taking the world as a whole, there seemed no doubt that after the war there would be a very considerable lack of livestock and livestock products, of oils and fats and, it was even likely, difficult as it might seem to believe, that there would also be an actual shortage of bread grains and rice. The Hot Springs Conference therefore recommended that all countries should plan their production programmes on a realistic basis which would put the relief of hunger first even at the expense of putting nutritional improvement of diet second. "There must, they say, continue to be a concentration on crops for direct human consumption since such products produce more calories per acre than livestock, and, moreover, their expansion can be effected more quickly. This means that those countries which will be trying to resuscitate their agricultural systems should concentrate in the first instance on those products which would most quickly relieve hunger even if this means retarding the rebuilding of their depleted livestock herds, essential though that rebuilding may ultimately be. The Conference added that countries which have been able to produce more than their normal output during the war should do everything in their power to maintain their production and if possible to increase it. This is embodied in Resolution XII.

The Minister continued: "How do the Conference resolutions fit in with the policy of war-time food production which we have pursued in this country and the policy underlying our plans for the next four years? I should perhaps say at once that so far as we are concerned we accept without hesitation the recommendations contained in Resolution XII. For our part we consider that the best contribution we shall be able to make to the relief of hunger and distress throughout the world is to go on producing the maximum amount of foodstuffs from our own soil as long as this appears to be necessary.

"As Hon. Members know, we have already done much towards this end. . . . We have, in fact, reached the end of the first phase of the food production campaign. We are now about to enter the second phase. During the first phase, we have striven with might and main to get more and more land under crops for direct human consumption and to push up milk production to the highest possible level. We have done this by sacrificing other things. We have cut down our pig and poultry populations drastically. We have concentrated on milk at the expense of meat.

"During the second phase our chief aim must be to maintain the high level of production which we have already reached. This necessarily involves an increase in livestock and livestock products."

The first great plank in the Government's four-year-plan for agriculture was to restore fertility to the land. The second great plank was the increase and improvement of our livestock. "If we increase the acreage of leys we must ensure that there is a sufficient head of stock to graze those leys, which generally speaking are more productive than permanent grass. But we must not only be concerned with increasing the quantity of our stock; we must also ensure that the quality is materially improved. This is particularly important if we are to maintain, or if possible increase our record figures of liquid milk supply and also if we are to carry out a policy of gradually improving its quality. In other words, the livestock policy which I recently announced in this House in connection with the White Paper on the Quality of the Nation's Milk Supplies, is an essential part of the agricultural production plan over the next four years.

"There are various steps which I propose to take towards this end. Firstly, the County War Agricultural Executive Committees will have to survey and classify herds. This will necessarily form the basis of the whole campaign and many committees have already made good progress with this task.

"Another urgent matter is the shortage of good bulls, particularly of good dairy bulls. At present about 60,000 bull calves are reared annually. 45,000 of these are presented for licensing and 40,000 are licensed. Of these some 27,000 are non-pedigree animals from cows which cannot be identified and only 18 per cent. of the dairy or dual purpose bulls are from officially recorded cows. This is not satisfactory, indeed very far from it. We must aim at having far more officially recorded herds and a far greater number of bull calves raised from them. If, however, we are not to jeopardise the number of bulls required we shall have to proceed with some caution and we are not yet in a position to insist that only bulls of satisfactory milk recorded ancestry should be used in dairy herds. I hope we shall see that day, but it is not yet. The standard of licensing will have steadily to be raised.

"Everything possible should be done to prevent the slaughter of dairy calves from pedigree and milk recorded herds that are worth preserving for breeding purposes. Pedigree breeders at present usually slaughter many of their bull calves which are not quite good enough for entry in the herd book. These calves, from the national point of view and from their ancestry, would, however, be well worth keeping and rearing. I would like to appeal to pedigree breeders and also to owners of officially milk recorded herds to co-operate with me in this urgent and vital task and rear or sell for rearing the greatest possible number of calves which are of sufficiently good quality to help in remedying the present shortage of good bulls. At the same time we must stimulate the market for a better type of young bull or bull calf. Many of the County Committees are already preparing, or proposing to prepare, a County Register of herds approved for bull breeding. In the case of dairy breeds, no herd should normally be admitted to this register unless it is officially milk recorded. In this way we should be able to step up the number of good dairy bulls available. In addition we are proposing to urge farmers to take good bull calves for their own use or to rear a number of calves and further, in suitable cases, committees will themselves take a hand by rearing dairy bull calves for subsequent sale to the small dairy farmer. Another step which we must take is to increase the supply of calves generally. Far too many calves have been slaughtered recently. I am therefore proposing to encourage farmers to rear more calves. On many small and inaccessible farms milk is being sold to-day which would be better and more economically used for calf rearing. I am also proposing that where buyers cannot be found suitable calves should be taken over and reared by County Committees. When, in this way, we have increased the supply of young cattle, we must adopt a more vigorous policy of weeding out, particularly from the dairy herds, unhealthy and unthrifty animals and promoting the use of suitable bulls in all herds.

"All these measures will assist in stepping up the production of higher quality milk. The basis of a sound milk policy must be a well-bred healthy dairy herd. Without this first essential no other steps will be of much use. I am therefore also proposing to arrange for improved regular veterinary inspection of all dairy herds at least once every year. Details of this were announced in the White Paper. Equally we must endeavour steadily to restore our sheep and pig populations.

"These are the main points of our agricultural programme over the next four years. That is how we intend to play our part in carrying out the recommendations of the United Nations Conference as regards food production in the short-term period. Hon. Members may perhaps think it a matter of some national satisfaction that our British policy, which I foreshadowed in a speech at Cambridge last October, has proved to correspond so closely to the considered views of the experts of 44 nations at Hot Springs."

ROYAL COLLEGE OF VETERINARY SURGEONS

Membership Examinations, July, 1943

List of Successful Candidates

(Concluded)

Dublin

Final Year

Blake, P. A.	Halpin, F. B.
Burns, N. M.	Hodgins, R. D.
Connolly, G. F.	Kelly, W. R.
Coyle, M. J.	Kerr, K. R.
Dalzell, Kenneth	Lee, R. P.
Dempsey, N. P.	Leonard, T. B.
Eivers, B. W.	McClay, Miss M. S.
Farrelly, Christopher	McGarry, J. J.
Fitzsimons, T. G.	Russell, Miss E. E.
Foley, James	Shinnors, G. A.
Freeman, W. J.	Steele, T. H.

NOTES AND NEWS

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

Aug. 26th.—Meeting of the South-Eastern Division, N.V.M.A., at Tonbridge, 2.30 p.m.

Sept. 29th and 30th.—**N.V.M.A. Annual Meeting and Conference, London School of Hygiene and Tropical Medicine.**

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N.V.M.A. Annual Meeting and Conference

The annual general meeting of the Association will be held, this year, on Wednesday and Thursday, September 29th and 30th, at the London School of Hygiene and Tropical Medicine, Keppel Street (Gower Street), London, W.C.1.

There will be a Luncheon at the Connaught Rooms, Great Queen Street, Kingsway, on Wednesday, September 29th.

It has been arranged for the President's Reception to be held at the Waldorf Hotel on the evening of Tuesday, September 28th.

Further details will be published as soon as possible.

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PERSONAL

Birth.—Hayes.—On July 31st, 1943, at "The Cottage," Aston Flamville, to Joan (*née* Gilbert) and Harry Hayes, M.R.C.V.S., of 96, Sketchley Road, Burbage, Leicestershire, a son, Robert William.

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R.C.V.S. Fellowship Diploma.—At the last quarterly meeting of the Council of the Royal College of Veterinary Surgeons, a report of which will appear in our next Supplement, it was resolved that the Fellowship diploma be awarded to Mr. William Orr (title of thesis: "Observations on contagious granular vaginitis in S. Rhodesia"), and Mr. C. W. Ottaway (title of thesis: "The

anatomical closure of the foramen ovale in the equine and bovine heart."

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R.C.V.S. OBITUARY

Auld, Robert, Stewarton, by Kilmarnock. Graduated Glasgow, July 14th, 1941. Died July 18th, 1943; aged 24 years.

We learn of the death of this young member of the profession, thus early in a promising career, with much regret. Mr. Auld passed away suddenly at Rotherham and the deepest sympathy is extended to his parents, Mr. and Mrs. R. Auld, of Kirkmuir, Stewarton.

Brand, James, 25, Tyndalls Park Road, Bristol. Graduated N. Edinburgh, December 22nd, 1890; Fellowship December 11th, 1897. Died July 27th, 1943.

Capt. James Brand, F.R.C.V.S.

We regret to record the death, which took place at Bournemouth, of Capt. James Brand, F.R.C.V.S., late of Clifton, Bristol, who was for 25 years in the service of the Ministry of Agriculture and Fisheries, retiring in 1927. *The Western Daily Press* says of him: "He came to Bristol in 1909 as senior officer and inspector of the port of Bristol, including the outer and inner docks. During this time many thousand animals passed under his supervision, and he was well known and very popular with dock officials and members of the trade. Captain Brand was a genial and hearty Irishman. He served through the South African War with the Forces, and attained the rank of veterinary captain. He was twice seconded for special service with the Colonial Office—in West Africa in 1908 and in Ireland in 1922. On the termination of his service in Ireland he received the thanks of the Secretary of State for the Colonies for ability and energy shown under difficult circumstances."

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FOOD INSPECTION IN BELFAST

A deputation consisting of members of the Belfast Public Health Committee and officers of the Corporation, including Capt. A. McLean, city veterinarian, was received by the Rev. R. Moore (Minister of Agriculture) at Stormont recently to discuss the inspection of meat at Belfast abattoir and of milk and food in the city. The Minister was accompanied by Mr. J. M'Allan, assistant secretary, and other officials.

It is understood that the Minister asked that the various points raised by the deputation should be put in writing. He undertook to consider their representations and to meet the deputation again.

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RUSSIA'S THANKS TO R.S.P.C.A.

Sir Robert Gower, M.P., Chairman of the R.S.P.C.A., has received, through the Foreign Office, a telegram from Lieutenant-General Lekareff, Chief of the Veterinary Service of the Red Army, asking him to accept and transmit to the members of the Society an expression of "gratitude for the assistance rendered by the medicaments, surgical, and other instruments sent to the Soviet Union Veterinary Service."

In transmitting this message Mr. Semon Sarkisov, Head of the Mission of the Union of Societies of the Red Cross and Red Crescent of the U.S.S.R. in London, writes: "I would like to say that I heartily concur with the remarks expressed in the telegram. The assistance which the Veterinary Service of the Red Army has received through your organisation has undoubtedly been the means of saving the lives of many Russian horses, in this way helping in the struggle against our common enemy. Please accept my sincere thanks for all you are doing."

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DAMS OF LICENSED BULLS

At the recent annual meeting of the Shorthorn Society it was decided to urge the Minister of Agriculture to ensure that when licences for bulls are granted there should be provided a satisfactory record of the yield of the dam.

Captain Milne Harrop (states *The Farmer's Weekly*) said they were asking the Minister to say what a bull was and what it was not, and Mr. Wooster stated that the present trend was to have all dairy cattle and soon there would be no good steers.

Mr. Norman N. Lee (President) said they would all have read that artificial insemination was being tried out. The Minister had made regulations by which no person could carry on the practice unless licensed by him, and the buildings and the bulls had to be licensed and approved.

He added that the Council had slightly revised its rules about the Shorthorn breed and stipulates that notification must be given before any animal is inseminated.

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DEVELOPMENTS IN ORGANISED PUBLIC INVESTIGATION OF NUTRITION PROBLEMS, WITH ESPECIAL REFERENCE TO U.S.A.

The programmes arranged hitherto by the Nutrition Society of Great Britain indicate how large veterinary experience figures in the problems of human nutrition, and to what extent the profession needs, now and in the future, to watch, in its own interests, for developments in this field. We have now a committee established by the Nutrition Society, with the support of the Ministers of Health and Food, for the co-ordination and, presumably, for the rational expansion of nutrition research. That is a significant stage on the path towards a Nutrition Council. But as yet we have no popular fabric of local committees, such as those which are apparently emerging in U.S.A. In the *Lancet* (June 12th, 1943, p. 757), Mr. F. Le Gros Clark provides a timely summary of the nutrition movement in U.S.A. Beginning in the 1920s, but thwarted with the onset of the financial depression, several of the states had, by 1930, nutritionist consultants. Withdrawal of federal grants-in-aid resulted in retrenchments and so, by 1932, only five state and city boards were recorded as employing nutritionists, and by 1936 not more than three states. In 1936, however, social security funds became available, and in response to federal pressure some 36 states were, by the early months of 1941, budgeting for the services of one or more nutritionists. In 1936, again, the President created an interdepartmental committee to co-ordinate health and welfare activities, and in the summer of 1940 a nutrition policy committee was formed. A national nutrition conference was then arranged in May, 1941. The committee had advice on technical dietetic problems from the National Research Council. Present national activities spring mainly from the Washington Nutrition Conference of May, 1941. On September 3rd following was formed the nutrition division of the office of Defence Health and Welfare Services, with the object of providing machinery to unite the multifarious work. Twenty federal agencies associated with the general nutrition programme had already been organised for war purposes, and the new Nutrition Division could therefore concentrate upon the requirements of the 48 states composing the U.S.A. During 1941-42 some 20 states held conferences at the call of their governors, and nutrition committees of a kind now exist in all the states, working with and through the councils of defence. These are directed to survey the existing state agencies concerned with nutrition and to distinguish gaps in the services, to pool information arising from local surveys, to develop educational methods, and to examine ways in which changes in the food situation may best be met. A few of the states have developed a local bulletin service to all communities within their area where a corresponding committee has been established; a similar bulletin service has been organised at monthly intervals between Washington and the state committees.

But it is in the country committees that the true and intimate vigour of the nutrition movement in the U.S.A. most often finds expression, and Mr. Le Gros Clark proceeds to give a succinct review of their activities, followed by a description of the structure of the central agency.

"It may be timely to consider," he concludes, "whether an effort could not be made to stimulate the growth and cohesion of these scattered cells [namely, the dispersed local branches of the few independent organisations now in existence], into an organic movement among our [British] cities and villages. Any project of this kind would attract the support of research workers, social workers, educationists and members of the medical profession; many of them are already engaged privately in arranging lecture courses and demonstrations, and in making investigations of small dimensions but valuable results. We possess the material, if we care to use it."

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A new industry for the manufacture of arsenic and antiseptic solution for cattle dip has been established near Salisbury, Rhodesia. The plant, which supplies the whole of Southern Africa, now turns out 115 tons of refined arsenic and 15,000 gallons of cattle dip every month. Before the war South Africa obtained her arsenic from America, Australia and Sweden, but shipping difficulties threatened to cut off supplies.—Reuter.

CORRESPONDENCE

Letters to the Editor should reach the Office not later than by the first post on Monday morning for insertion in following Saturday's issue.

The views expressed in letters addressed to the Editor represent the personal views of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

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TOXIC IDIOSYNCRASY TO SULPHAPYRIDINE

Sir,—The following notes on the toxic action sometimes encountered after the administration of sulphapyridine may be of interest. On May 27th last I was called to an emaciated and neglected greyhound bitch on which a client of mine had taken pity. The bitch was suffering from the secondary effects of distemper: running from the eyes, temperature 104° F., and on auscultation the lungs were slightly affected. Two 0·5 gramme tablets of sulphapyridine were administered orally, two more in eight hours to be followed by six single tablets at eight-hour intervals. In eight days' time the bitch developed hysteria and dial tablets were prescribed and an alkaline stomachic, the latter to allay any stomach irritation that might have been caused by the drug, but from the following case it appears that the hysteria was most likely to have been caused by direct toxic action on the brain cells.

A very healthy 12-year-old girl was "out of sorts" and her temperature was taken and found to be 102° F. She was put to bed and the local doctor called in. The only lesion found was a slight "throat," and the doctor ordered two doses of two 0·5 gramme tablets at six-hour intervals followed by five single tablets at the same intervals. The last two tablets caused nausea even when given with glucose. On the completion of the course the patient's temperature was normal but there were signs that her brain was affected; she showed intense resistance to everything and was dazed, sleepy and inclined to talk about her "happy childhood" and had lost all count of time. An eminent child specialist was immediately summoned and a complete and exhaustive examination of the patient was made, but without any definite findings. Two blood smears, a blood sample and a lumbar puncture for sample of spinal fluid therefore were taken. The spinal fluid seemed to be under slight pressure but was normal on examination and the blood count revealed a granular leucopenia, the white cells being down to 2,000. On a differential count it was found that the fall was in the granular leucocytes.

The child was taken to hospital for a course of medicine or blood transfusions if found necessary.

In three days the blood count was normal but as yet the mental condition is not normal although showing distinct improvement.

The above two cases show the danger of individual idiosyncrasy to sulphapyridine both in human and veterinary practice.

Yours truly,
ROBIN MURPHY.

Balrath House,
Balrath, Co. Meath.

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(1) REDWATER; (2) PASTEURISATION

Sir,—*Redwater.*—May I be permitted to comment on Mr. D. Trevor Roberts' communication of July 17th?

I see much redwater in practice here, but would say that whilst it is commonest between May and October, I have seen many cases during the winter months, even in severe weather, possibly due to ticks surviving in hay, or in dried bracken used as bedding.

Last winter a new client arrived at a farm bringing his own cows with him: during December I treated three cases, and during March and April nine more cases were treated, without loss.

Mr. Roberts mentions acquired immunity; I have come to the conclusion that the apparent immunity in cattle reared on a "redwater farm" is probably always due to mild attacks as yearlings, which were not noticed at the time—any which escape this attack are still susceptible in later life.

I do not agree with the use of mag. sulph. for constipation; I have always observed a toxic reaction if a urea compound is given with or after a dose of saline purgative.

When it became difficult to obtain acaprin I tried both pirevan and piroparv. I found that piroparv seemed much more reliable and I have never seen any toxic reaction, except in advanced cases where it could be expected.

I cannot understand Mr. Roberts's remark about injection into the dewlap, as I have never seen any local reaction worse than a slight swelling and thickening of the skin at the site of injection in the neck.

My routine treatment is as follows:—

Piroparv s/c (max. dose about 8 c.c.), and carbamylcholine (B. W. & Co.), 2 c.c.

If any signs of constipation indicate purgatives, one to two pints of linseed oil are given. The carbamylcholine may be repeated if constipation continues, and a few doses of ammon. carb. and nux. vomica powders soon bring back an appetite in obstinate cases.

Pasteurisation of Milk.—At present this is clearly a necessity from the public health point of view, and if the suggestions in the White Paper on milk improvement are carried out there will be plenty of work for all those in the profession who are willing to co-operate; if this scheme is successful, then obviously, in the course of time, pasteurisation will become unnecessary as the quality of the milk improves.

The only "snag" that I can foresee is the proposed wholesale inoculation of heifer calves with live abortion vaccine. Has it been proved that the use of this method will not expose many more people to the risk of undulant fever? I should be glad if anyone would answer this query.

Yours faithfully,
G. S. ALLEN.

"Dermic,"
Old Chard Road,
Nr. Honiton, Devon.
July 18th, 1943.

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ANTI-DISTEMPER INOCULATION

Sir,—Recently I have been called upon to treat two dogs suffering from typical distemper. On both occasions I was informed that the dog had been inoculated against distemper. Further enquiry produced from one owner the statement that his dog had received three injections for which he paid 7s. 6d. The other owner said his dog received one injection for which he paid 5s. In each case the "inoculation" was carried out by a qualified veterinary surgeon.

It seems obvious that in neither case was a true anti-distemper vaccination carried out. In the first case the three injections were presumably killed vaccines of secondary invaders and in the second case one can only speculate.

I consider that the use of such products which have no scientific claim to be "anti-distemper inoculations" can only bring true vaccination into disrepute, and should not be carried out by a qualified veterinarian.

I have made it a point that when I vaccinate a dog I issue a certificate which gives the details of the method used and I stick Burroughs Wellcome's original labels on the certificate. If every veterinary surgeon would do this it would leave no doubt in anyone's mind as to the nature of the treatment.

Might I also suggest that when a veterinary surgeon administers a dose of anti-distemper serum upon kennelling a young dog, he should explain that this is not vaccination. I have had a number of clients who were under a misapprehension on this point.

Yours faithfully,
MILLER WATSON.

173, Duke Street,
Glasgow, E.1.
July 24th, 1943.

DISEASES OF ANIMALS ACTS, 1894 TO 1937, AND AGRICULTURE ACT, 1937 (PART IV).

Summary of Returns of Confirmed Outbreaks of Scheduled (Notifiable) Diseases

Period	Anthrax	Foot-and-mouth	Parasitic Mange*	Sheep Scab	Swine Fever
July 1st to 15th, 1943...	7	—	—	1	23
Corresponding period in—					
1942 ...	16	29	—	1	15
1941 ...	8	2	—	3	29
1940 ...	15	—	1	2	221
Total Jan. 1st to July 15, 1943	171	10	6	101	281
Corresponding period in—					
1942 ...	188	74	26	118	247
1941 ...	282	257	10	137	824
1940 ...	296	19	15	117	2,332

NOTE.—The figures for the current year are approximate only.
* Excluding outbreaks in Army Horses.